AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-11. (Cancelled)

12. (**Currently Amended**) A process for an addition reaction which comprises ~~adding to an organotitanium reacting reagent comprising:~~

performing an addition reaction of a reactant compound having an electrophilic functional group or an electrophilic reagent, and a reagent made from

a titanium compound represented by formula (I) below

$TiX^1X^2X^3X^4$ (1)

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring), ~~and~~ a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound

R^1MgX^5 (2)

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom), and a compound having a carbon-carbon unsaturated bond at a temperature in a range of -78°C to 0°C,

~~a compound having an electrophilic functional group or an electrophilic reagent, thereby performing an addition reaction on the compound having a carbon-carbon unsaturated bond in the presence of said organotitanium reacting reagent,~~

wherein the compound having a carbon-carbon unsaturated bond is not styrene; and

wherein the addition reaction is not a polymerization reaction.

13. (**Currently Amended**) The process as defined in Claim ~~11 or~~ 12, wherein the reaction between a compound having an electrophilic functional group and a compound having a carbon-carbon unsaturated bond is followed by further addition of a compound having an electrophilic functional group.

14. (**Currently Amended**) The process as defined in Claim ~~11~~ 12 or 13, wherein the reaction between a compound having an electrophilic functional group and a compound having a carbon-carbon unsaturated bond is followed by addition of a electrophilic reagent.

15. (**Currently Amended**) The process for addition reaction as defined in Claim ~~11~~ 12, wherein the compound having a carbon-carbon unsaturated bond and the compound having an electrophilic functional group are replaced by a compound having both a carbon-

carbon unsaturated bond and an electrophilic functional group in the same molecule for intramolecular addition reaction.

16. (Original) The process as defined in claim 15, wherein the intramolecular addition reaction for a compound having a carbon-carbon unsaturated bond and an electrophilic functional group is followed by further addition of a compound having an electrophilic functional group.

17. (Original) The process as defined in claim 15 or 16, wherein the intramolecular addition reaction for a compound having a carbon-carbon unsaturated bond and an electrophilic functional group is followed by addition of an electrophilic reagent.

18. (**Currently Amended**) The process defined in Claim ~~11~~ 12, wherein the titanium compound is one which has an asymmetric ligand.

19. (**Currently Amended**) The process defined in Claim ~~11~~ 12, wherein the compound having a carbon-carbon unsaturated bond is any of olefin compounds, acetylene compounds, or allene compounds.

20. (**Currently Amended**) The process defined in Claim ~~11~~ 12, wherein the electrophilic functional group is an aldehyde group, ketone group, imino group, hydrazone group, aliphatic double bond, aliphatic triple bond, acyl group, ester group, or carbonate group.

21. (**Currently Amended**) The process defined in Claim ~~11~~ 12, wherein the electrophilic reagent is water, heavy water, chlorine, bromine, iodine, N-bromosuccimide, oxygen, carbon dioxide gas, or carbon monoxide.

22. (**Currently Amended**) A process which comprises:

reacting a titanium compound represented by the formula (1) below

$$TiX^1X^2X^3X^4 \quad (1)$$

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

$$R^1MgX^5 \quad (2)$$

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom) thereby forming a titanium catalyst[,]; and

deallylating in the presence of the titanium catalyst an allyl-substituted malonate ester derivative represented by the formula (3) below

$$R^2R^3C=CR^4CH_2C(Ra)(COORb)_2 \quad (3)$$

(where R^2, R^3, and R^4 denote independently a hydrogen atom or C_{1-10} alkyl group, Ra denotes a C_{1-20} substituted or unsubstituted alkyl group, alkenyl group, or aralkyl group, and Rb denotes a C_{1-10} alkyl

group or aralkyl group), thereby giving a malonate ester derivative represented by the formula (4) below

$$RaCH(COORb)_2 \qquad (4)$$

(where Ra and Rb are defined as above).

23. (**Previously Presented**) A process which comprises alkylating an allylmalonate ester represented by the formula (5) below

$$R^2R^3C=CR^4CH_2CH(COORb)_2 \qquad (5)$$

(where R^2, R^3, and R^4 denote independently a hydrogen atom or C_{1-10} alkyl group, and Rb denotes a C_{1-10} alkyl group or aralkyl group), thereby giving an allyl-substituted malonate ester derivative represented by the formula (3) below

$$R^2R^3C=CR^4CH_2C(Ra)(COORb)_2 \qquad (3)$$

(where R^2, R^3, R^4, and Rb are defined as above, and Ra denotes a C_{1-20} substituted or unsubstituted alkyl group, alkenyl group, or aralkyl group), reacting this derivative with a titanium compound represented by the formula (1) below

$$TiX^1X^2X^3X^4 \qquad (1)$$

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

R^1MgX^5 (2)

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom), thereby forming a titanium catalyst, and performing deallylating reaction in the presence of the titanium catalyst, thereby giving a malonate ester derivative represented by the formula (4) below

$RaCH(COORb)_2$ (4)

(where Ra and Rb are defined as above).

24. (**Original**) The process as defined in claim 22 or 23, wherein R^2, R^3, and R^4 each denote a hydrogen atom.

25. **(Previously Presented)** A titanium catalyst for reaction between a compound having a carbon-carbon unsaturated bond and a compound having an electrophilic functional group or an electrophilic reagent, said titanium catalyst being composed of a titanium compound represented by the formula (1) below

$TiX^1X^2X^3X^4$ (1)

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

R^1MgX^5 (2)

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom);

wherein when the compound having a carbon-carbon unsaturated bond is an olefin, the olefin is selected from the group consisting of a substituted or unsubstituted halogenated allyl and a substituted or unsubstituted allyl alcohol derivative; and

wherein the C_{2-10} alkyl group of R^1 does not act as a nucleophile in the reaction; and

wherein the reaction between a compound having a carbon-carbon unsaturated bond and a compound having an electrophilic functional group or an electrophilic reagent is not a polymerization reaction.

26. (**Cancelled**)

27. (**Previously Presented**) An organotitanium reacting reagent which is composed of a titanium compound represented by the formula (1) below

$$TiX^1X^2X^3X^4 \qquad (1)$$

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

$$R^1MgX^5 \qquad (2)$$

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom), and a compound having a carbon-carbon unsaturated bond;

wherein when the compound having a carbon-carbon unsaturated bond is an olefin, the olefin is selected from the group consisting of a substituted or unsubstituted halogenated allyl and a substituted or unsubstituted allyl alcohol derivative; and

wherein the C_{2-10} alkyl group of R^1 does not act as a nucleophile in the reaction; and

wherein the organotitanium reacting reagent is not used in a polymerization reaction.

28. (**Previously Presented**) A process for producing an organotitanium reacting reagent, said process comprising reacting together a titanium compound represented by the formula (1) below

$$TiX^1X^2X^3X^4 \qquad (1)$$

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

$$R^1MgX^5 \qquad (2)$$

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom), and a compound having a carbon-carbon unsaturated bond;

wherein when the compound having a carbon-carbon unsaturated bond is an olefin, the olefin is selected from the group consisting of a substituted or unsubstituted halogenated allyl and a substituted or unsubstituted allyl alcohol derivative; and

wherein the organotitanium reacting reagent is not used in a polymerization reaction.

29. (**Previously Presented**) A process for an addition reaction which comprises combining a compound having a carbon-carbon unsaturated bond and a compound having an electrophilic functional group or an electrophilic reagent, in the presence of a titanium compound represented by the formula (1) below

$$TiX^1X^2X^3X^4 \qquad (1)$$

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

$$R^1MgX^5 \qquad (2)$$

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom);

wherein when the compound having a carbon-carbon unsaturated bond is an olefin, the olefin is selected from the group consisting of a substituted or unsubstituted halogenated allyl and a substituted or unsubstituted allyl alcohol derivative; and

wherein the addition reaction is not a polymerization reaction.

30. (**Previously Presented**) A process for an addition reaction which comprises adding to an organotitanium reacting reagent comprising:

a titanium compound represented by formula (I) below

$TiX^1X^2X^3X^4$ (1)

(where X^1, X^2, X^3, and X^4 denote independently a halogen atom, C_{1-20} alkoxy group, aralkyloxy group, aryloxy group, or -NRxRy group (where Rx and Ry denote independently a C_{1-20} alkyl group or aralkyl group), and any two of X^1, X^2, X^3, and X^4 may form a ring) and a Grignard reagent represented by the formula (2) below in a molar amount 1-10 times as much as the titanium compound,

R^1MgX^5 (2)

(where R^1 denotes a C_{2-10} alkyl group having a hydrogen atom at the β position and X^5 denotes a halogen atom), and a compound having a carbon-carbon unsaturated bond,

a compound having an electrophilic functional group or an electrophilic reagent, thereby performing an addition reaction on

the compound having a carbon-carbon unsaturated bond in the presence of said organotitanium reacting reagent,

wherein when the compound having a carbon-carbon unsaturated bond is an olefin, the olefin is selected from the group consisting of a substituted or unsubstituted halogenated allyl and a substituted or unsubstituted allyl alcohol derivative; and

wherein the addition reaction is not a polymerization reaction.

31-33. (**Cancelled**)

34. (**Previously Presented**) The process as defined in Claim 12, wherein the addition reaction is an intramolecular or dimerization reaction.

35. (**Previously Presented**) The titanium catalyst as defined in Claim 25, wherein the reaction between a compound having a carbon-carbon unsaturated bond and a compound having an electrophilic functional group or an electrophilic reagent is an intramolecular or dimerization reaction.

36. (**Cancelled**)

37. (**Previously Presented**) The organotitanium reacting reagent as defined in Claim 27, wherein the organotitanium reacting reagent is used in an intramolecular or dimerization reaction.

38. (**Previously Presented**) The process for producing an organotitanium reacting reagent as defined in Claim 28, wherein the organotitanium reacting reagent is used in an intramolecular or dimerization reaction.

39. (**Previously Presented**) The process as defined in Claim 29, wherein the addition reaction is an intramolecular or dimerization reaction.

40. (**Previously Presented**) The process as defined in Claim 30, wherein the addition reaction is an intramolecular or dimerization reaction.